BY ORDER OF THE COMMANDER
913TH AIRLIFT WING

913th AIRLIFT WING INSTRUCTION 23-207

1 September 1997

Supply

PRECIOUS METALS RECOVERY PROGRAM (PMRP)

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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Supersedes 913 AWI 23-207, 27 February 1995 Pages: 9
Distribution: F

This instruction implements AFPD 23-5 and AFMAN 23-110, Vol 6. It establishes user responsibilities for the economic recovery of silver, gold, and platinum family metals from excess and surplus precious metal-bearing materials.

SUMMARY OF REVISIONS

This revision changes the AFPD it implements.

1. Program Objective. To promote the economical recovery of precious metals from excess and surplus materials and the use of recovered precious metals as government furnished material and for other authorized Air Force use. The program covers silver, gold, platinum, palladium, radium, osmium, rhodium, ruthenium, and high content items assigned a Controlled Item Code (CIC) "R".

2. Scope. This instruction applies to all base activities who are managing, receiving, storing, generating, or handling precious metals bearing scrap or waste, including precious metal spent from hyposolution, scrap film, battery cells, electric parts, and any other item that contains precious metal.

3. Responsibilities:

3.1. PMRP Project Officer. The Installation Commander will appoint in writing a PMRP Project Officer who will act as the focal point for all matters concerning the PMRP.

3.2. The PMRP Project Officer will:

3.2.1. Ensure that a recovery program is established in all activities that may have harvested precious metals and that such program is in compliance with AFMAN 23-110, Vol 6.

3.2.2. Maintain a list of organizations, organization monitor/alternate's name, telephone number, location and, as applicable, type of recovery equipment, kind of precious metals scrap generated,

and the kind of fine precious metals and high precious metals content items used which are assigned a CIC "R".

3.2.3. Prepare a schedule for and visit each participating activity at least yearly for review of operations, documentation, and adherence to overall program requirements. Ensure corrective action is taken on any discrepancies.

3.2.4. Ensure applicable activities maintain appropriate auditable records and the records and quantities of material on hand are audited by disinterested personnel periodically but no less than two times per year.

3.3. All activities:

3.3.1. Will be required to maintain current operating instruction to reflect their respective collection, processing, auditing, and turn-in procedures.

3.3.2. Will maintain records for the use and turn-in of fine precious metals, scrap, and end items not on accountable supply records, and high content items assigned CIC "R", and will be subject to periodic review/audit by the PMRP monitor, and investigative agencies. Such records will contain the following data, as a minimum:

3.3.2.1. Fine precious metals by bulk weight.

3.3.2.2. Silver flakes harvested from electrolytic units, by troy weight and turn-in.

3.3.2.3. Silver bearing sludge harvested from electrolytic units and stripping tanks by troy weight and turned in.

3.3.3. Will appoint, in writing, a PMRP monitor and alternate as required, with copies to the installation PMRP Project Officer.

3.3.4. Will initiate and maintain a self-inspection program to include as a minimum, AFI 31-209 requirements, periodic testing of hyposolution drained from electrolytic cartridge units to ensure units are operating properly, and compliance with receipt, issue, and turn-in requirements.

3.3.5. Will segregate precious metals bearing scrap from other scrap for turn-in. Items with Expendability-Repairability-Recoverability-Code (ERRC) designators of XF3 code "P", and XB3 code "N" are not throwaway items. When expanded (condemned), these items should be placed in an appropriate receptacle in the work place for periodic turn-in as scrap.

3.3.6. Precious metal bearing scrap will be safeguarded according to locally established procedures to prevent theft.

3.4. Generating activities will not transfer precious metals directly to the Defense Reutilization and Marketing Office (DRMO), but will turn them in to the Chief of Supply for transfer to DRMO. Prepare a DD Form 1348-1A (Issue Release/Receipt Document), and hand carry the precious metal to the Supply Inspection Element. The Inspection Element will receipt for the precious metal and return a copy of the DD Form 1348-1A to the activity.

3.5. Examples of Precious Metal-Bearing Property (Attachment 1) and Identification and Sources for Precious Metal-Bearing Items (Attachment 2) will assist personnel in identifying potential recoverable precious metals.

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Commander

Attachment 1

EXAMPLES OF PRECIOUS METAL-BEARING PROPERTY

A1.1. Listed below are DoD items that may contain economically recoverable precious metals:

A1.1.1. Silver-Bearing Items:

A1.1.2. Aircraft engine bearings, bushings, ring assemblies, link pins, slip rings, counterweights, gears and numerous other small parts

A1.1.3. Amalgam (silver and mercury)

A1.1.4. Anodes

A1.1.5. Assemblies, electrical

A1.1.6. Batteries (silver/copper, silver/cadmium, silver/zinc, and silver/magnesium)

A1.1.7. Blanking scrap punchings

A1.1.8. Brazing alloys

A1.1.9. Bullion

A1.1.10. Chemical salts

A1.1.11. Clad bimetal parts

A1.1.12. Contacts

A1.1.13. Cyanide plating solutions and anode butts

A1.1.14. Dental wire, tubes, strips, pellets and silver alloy powder

A1.1.15. Desalting kits

A1.1.16. Drugs (silver protein, silver iodate, silver nitrate and silver sulfate)

A1.1.17. Electrical/electronic relays

A1.1.18. Electric motor brushes

A1.1.19. Flake (from hypo solution recovery systems)

A1.1.20. Granulated powders

A1.1.21. Jewelry sweeps

A1.1.22. Mirroring solutions

A1.1.23. Photographic film (photo negatives, industrial/medical X-ray and lithographic)

A1.1.24. Photographic hypo solution

A1.1.25. Photographic paper

A1.1.26. Plated hooks or nodules

A1.1.27. Plated electrical/electronic parts

A1.1.28. Plated serving pieces

A1.1.29. Plated utensils

A1.1.30. Plated wire

A1.1.31. Plating filters

A1.1.32. Plating sludges/precipitates

A1.1.33. Plating solutions

A1.1.34. Radar antennas

A1.1.35. Receiver assemblies

A1.1.36. Resins

A1.1.37. Silver-lined bearings (from diesels, locomotives or aircraft)

A1.1.38. Sterling silver

A1.1.39. Wave guides

A1.1.40. Wiping rags

A1.2. Gold-Bearing Items:

A1.2.1. Brazing alloy

A1.2.2. Circuit boards and connectors

A1.2.3. Copper amalgam plates

A1.2.4. Dental sweeps (may also contain silver)

A1.2.5. Dental scrap (up to 70 percent pure gold)

A1.2.6. Dental wire (gold alloy)

A1.2.7. Electron tubes

A1.2.8. Eyeglass frames

A1.2.9. Gold-bearing ion-exchange resins

A1.2.10. Gold chemical ware and anodes

A1.2.11. Gold-clad parts/connector pins

A1.2.12. Gold salts/chemicals, solders

A1.2.13. Gold solutions, sludges and precipitates

A1.2.14. Gold wire

A1.2.15. Jewelry and optical scrap

A1.2.16. Relay/contact points

A1.2.17. Semiconductor plates

A1.2.18. Transistors and diodes

A1.2.19. Uniform buttons

A1.2.20. Military decorations/insignia

A1.3. Platinum/Platinum Family-Bearing Items:

A1.3.1. Aircraft magneto and relay contact points

A1.3.2. Aircraft spark plugs

A1.3.3. Bracket, breaker and spring assemblies for aircraft magnetos

A1.3.4. Dental alloy and dentures

A1.3.5. Dental wire (platinum alloy)

A1.3.6. Detonator fuses

A1.3.7. Electronic tube grids

A1.3.8. Evaporators and evaporator dishes

A1.3.9. Laboratory ware, anodes, cathodes and crucibles

A1.3.10. Platinum and platinum group catalysts

A1.3.11. Platinum foil

A1.3.12. Relays

A1.3.13. Safety burst discs

A1.3.14. Salts and derivatives

A1.3.15. Semiconductors and resistant alloys

A1.3.16. Solenoid switches (platinum)

A1.3.17. Spark plug, resistor type, platinum electrode

A1.3.18. Spinnerets and feeder dies

A1.3.19. Switch contacts

A1.3.20. Telephone switchboards (palladium)

A1.3.21. Thermocouple wires

A1.3.22. Triodes for various transmitting amplifiers

A1.3.23. Voltage regulators

Attachment 2

IDENTIFICATION AND SOURCES FOR PRECIOUS METAL-BEARING ITEMS

A2.1. SOURCES: Specific sources of precious metals are provided below to assist personnel in identifying precious metals.

A2.1.1. Electronic Scrap. Precious metals bearing electronic scrap will be segregated and sorted (if necessary) into the appropriate SCL code. Precious metals bearing electronic scrap may contain any of the precious metals, either solely or in combination.

A2.1.2. Circuit Boards/cards

A2.1.3. Circuit breakers

A2.1.4. Connectors

A2.1.5. Contacts

A2.1.6. Plugs

A2.1.7. Relays

A2.1.8. Switches

A2.1.9. Wave guides

A2.1.10. Wiring

A2.2. Silver:

A2.2.1. Aircraft engine bearings, bushings, ring assemblies, link pins, slip rings, counterweights, gears, and numerous other small parts.

A2.2.2. Amalgam pellets

A2.2.3. Buss bars

A2.2.4. Cyanide plating solutions and anode butts

A2.2.5. Dental amalgam (contains silver and mercury)

A2.2.6. Dental wire, tubes, strips, pellets, powder (silver alloy)

A2.2.7. Desalting kits

A2.2.8. Drugs (silver protein, silver iodate, silver nitrate, silver sulfate).

A2.2.9. Film and paper (aerial, X-ray and photographic film, prints and papers).

A2.2.10. Jewelry

A2.2.11. Mirroring solutions

A2.2.12. Plated or washed silver surfaces

A2.2.13. Radar antennas

A2.2.14. Receiver assemblies

A2.2.15. Relay contact points

A2.2.16. Tableware

A2.2.17. Silver-cell batteries (aircraft, missile, torpedo)

A2.2.18. Silver clad base metal

A2.2.19. Silver-bearing jet engine parts

A2.2.20. Silver sludges, precipitates, chloride, oxide, nitrate, and silver salts.

A2.2.21. Silver solders and brazing alloys

A2.2.22. Silver solders and brazing alloys

A2.3. Gold:

A2.3.1. Brazing alloy (gold)

A2.3.2. Copper amalgam plates

A2.3.3. Dental bench sweepings (contain silver and gold)

A2.3.4. Dental scrap (up to 70% pure gold)

A2.3.5. Dental wire (gold alloy)

A2.3.6. Gold bearing ion-exchange resins

A2.3.7. Gold chemical ware and anodes

A2.3.8. Gold clad parts and connector pins

A2.3.9. Gold salts, chemicals, solders

A2.3.10. Gold solutions, sludges, and precipitates

A2.3.11. Jewelry and optical scrap

A2.3.12. Medals

A2.3.13. Plated semiconductors

A2.3.14. Plating books, hangers, and wires

A2.3.15. Relay and contact points

A2.3.16. Transistors and diodes

A2.3.17. Uniform emblem and buttons

A2.4. Platinum Group:

A2.4.1. Aircraft magneto and relay contact points

A2.4.2. Aircraft spark plugs

A2.4.3. Bracket, breaker assembly, and spring assembly for magneto assemblies for aircraft engines

A2.4.4. Dental alloys and dentures

A2.4.5. Dental wire (platinum alloy)

A2.4.6. Detonator fuses

A2.4.7. Electronic diodes and parts

A2.4.8. Electronic tube grid

A2.4.9. Evaporators and evaporate dishes

A2.4.10. Laboratory ware, anodes, cathodes and crucibles

A2.4.11. Platinum and platinum group catalysts

A2.4.12. Platinum foil

A2.4.13. Platinum group class materials

A2.4.14. Platinum resistor furnace coils

A2.4.15. Safety burst discs

A2.4.16. Salts and derivatives

A2.4.17. Semiconductors and resistant alloys, solenoid switches (platinum)

A2.4.18. Spark plug, resistor type, platinum electrode

A2.4.19. Spinnerets and feeder dies

A2.4.20. Telephone switchboards (palladium)

A2.4.21. Thermocouple wires

A2.4.22. Triodes for various transmitting amplifiers

A2.4.23. Voltage regulators

A2.5. Aircraft Structure Components Containing Precious Metals. Some aircraft components using honeycomb design, such as F-4 series (Phantom) aircraft stabilizers and C-141 aircraft flame cone assemblies, contain recoverable silver (silver brazing). Such precious metals bearing components will not be offered for sale but will be downgraded to scrap and reported for precious metals recovery.